

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
25 March 2004 (25.03.2004)

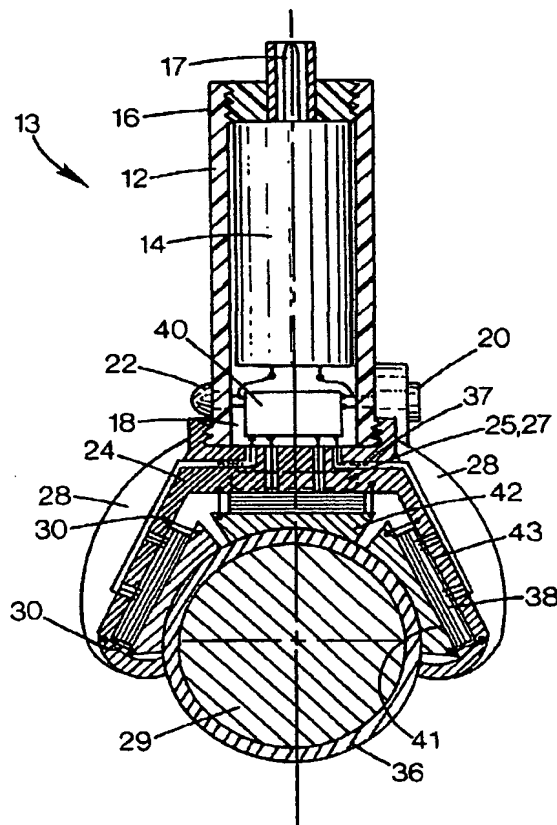
PCT

(10) International Publication Number
WO 2004/024000 A1

- (51) International Patent Classification⁷: A61B 5/16 // H01L 23/38, 35/28, A61B 5/11
- (21) International Application Number: PCT/SE2003/001403
- (22) International Filing Date: 8 September 2003 (08.09.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/319,550 15 September 2002 (15.09.2002) US
- (71) Applicants and
(72) Inventors: ADOLFSSON, Rune [SE/SE]; Stackvagen 4, S-432 54 Värberg (SE). ELIASSON, Lennart [SE/SE]; Marsavägen 9, S-430 10 Tvååker (SE).
- (74) Agents: FASTH, Rolf et al.; Fasth Law Offices, 629 E. Boca Raton Road, Phoenix, AZ 85022 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report

[Continued on next page]

(54) Title: SENSOR FOR DETERMINING THE EFFECT OF ANAESTHETIC TREATMENT BY COOLING THE SKIN WITH THE SENSOR



(57) Abstract: The sensor device has a housing (12) with a flanged housing (24). The housing (24) is made of a material having a first high heat-conductivity index. A holder (30) is attached to the housing (24) and made of a material with a second low heat-conductivity index that is substantially lower than the first high heat conductivity index. The holder (30) holds a peltier element (38) and is connected to a power source (14) so that the element (38) has a cooled layer (41) and a heated layer (43). A rotatable roller (36) is in operative engagement with the layer (41) so that the layer (41) cools the roller (36). The roller (36) may be rolled on the skin of the patient to determine the scope and effect of anesthetic treatment.